

REMARKS

Claims 1-19 are pending in the application. Claims 1, 2, and 19 have been objected to for certain informalities which have been corrected.

Claims 14 and 17 stand rejected under 35 U.S.C. §112 second paragraph on the ground that the phrase “repeating frame bus”. This term is defined on page 16 of the specification by reference to the applicant’s CellBus® patents. The CellBus® technology has become an industry standard in the field of ATM. Nevertheless, page 16 has been amended to spell out the term “repeating bus frame”. No new matter has been added.

Claim 1 stands rejected under 35 U.S.C. §103(a) as obvious over Reed in view of Halsall and Mizukoshi. Before turning to an analysis of the rejection, it will be helpful to explain what is being claimed in claim 1.

Claim 1 is a method for supporting two bus masters on a single UTOPIA bus. The UTOPIA standard does not allow for more than one bus master but it was the inventors’ idea that multiple bus masters would be desirable to provide either redundancy in the case of malfunction or to provide load sharing in the case of congestion. The challenge faced by the inventors was how to accomplish this goal without modifying the UTOPIA standard. Claim 1 claims the elements of how it is done. Two bus masters are coupled to the same UTOPIA bus, one is designated the primary and the other is designated the secondary. The two bus masters are also coupled to each other so that they

can signal each other to coordinate their efforts. This is shown in Fig. 3 where master 12 and master 14 are coupled to the same UTOPIA bus 16 and are coupled to each other via signal lines 24, 26, 28 which relate directly to the last two paragraphs of claim 1. It is also shown in Fig. 6 of the application where the masters 100a and 100b are coupled to the same UTOPIA bus 206 and are coupled to each other by the unlabeled bidirectional link connecting 100a with 100b.

Turning now to the teachings of the references, Reed discloses an apparatus and a method which permits a plurality of master stations to be attached to a communications channel and to provide an arbitrating mechanism within each master by which one master station is designated as in control of the communications channel. The method overcomes the single point failure by providing redundant masters. Furthermore, each station in the network is polled by a grant transmission at a constant interval of time irrespective of which master is in control of the bus to assure efficient utilization of the bus. Reed is operating within the CSMA (carrier sense multiple access) environment and therefore teaches nothing about UTOPIA.

Halsall discloses data communications generally and does not mention UTOPIA. Only Mizukoshi mentions UTOPIA but does not mention a bus master.

The Examiner states that Reed teaches multiple bus masters in the general sense, Halsall teaches connection oriented versus connectionless communication and says the former is more reliable and Mizukoshi teaches a UTOPIA bus. The incentive to combine

these unrelated references is that directly connecting two bus masters is reliable and it “may also benefit ATM UTOPIA bus networks”.

Precedent requires that to find a combination obvious there must be some teaching, suggestion, or motivation in the prior art to select the teachings of separate references and combine them to produce the claimed combination. *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1385 (Fed. Cir. 2001) (“In holding an invention obvious in view of a combination of references, there must be some suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to select the references and combine them in the way that would produce the claimed invention.”); *In re Dance*, 160 F.3d 1339, 1343 (Fed. Cir. 1998) (“When the references are in the same field as that of the applicant's invention, knowledge thereof is presumed. However, the test of whether it would have been obvious to select specific teachings and combine them as did the applicant must still be met by identification of some suggestion, teaching, or motivation in the prior art, arising from what the prior art would have taught a person of ordinary skill in the field of the invention.”); *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143 (Fed. Cir. 1985) (“When prior art references require selective combination ... to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself.”). [Emphasis added in all quotes.]

When the Examiner states that this combination “may also benefit ATM UTOPIA bus networks”, he is required to point to some prior art teaching that says exactly that. As

the rejection is stated it appears that it is merely the Examiner's opinion that this combination "may also benefit ATM UTOPIA bus networks", and the Examiner's opinion is tainted because he has read the Applicants' full explanation of what the benefits are and how to achieve them. For these reasons, the Examiner's rejection of claim 1 is improper. The three references cited by the Examiner have no connection with each other. They were selected by the Examiner in an attempt to meet each limitation of claim 1. The only incentive for combining these references is to reconstruct claim 1. Without claim 1, no one would think that these references could be combined. It is incumbent on the Examiner to put claim 1 out of his mind, forget everything learned by reading this application and look at the references and see what they suggest. If the Examiner does this, he will agree that there is no suggestion to combine these references.

Claims 2 and 3 stand rejected under 35 U.S.C. §103(a) as obvious over the references cited against claim 1 further in view of Moyer. Claim 2 specifies the use of a ready signal by the secondary bus master to the primary bus master and claim 3 specifies that if a ready signal is absent for more than one cell time, the primary ignores the secondary (the assumption is that the secondary has malfunctioned).

Claim 2 depends from claim 1 and claim 3 depends from claim 3. Therefore the arguments made regarding claim 1 also apply to this rejection. Moyer discloses a method and apparatus for performing bus arbitration in a data processing system. There is no mention in Moyer of ATM, UTOPIA, communications or telecommunications.

The Examiner's stated motivation for combining Moyer with the others is so that "the primary bus master may avoid performing any processing of bus data which deems irrelevant to itself (i.e. when in use by others) and use such valuable processing for other means." The Examiner does not state where he found this incentive and it is certainly not in Moyer. In addition, the bus masters in claims 2 and 3 do not "use valuable processing for other means".

The Examiner further states (with respect to claim 3) that Reed teaches that "[in no circumstance] the secondary bus master will fail to send a ready signal (i.e. malfunction)..." citing col. 6, lines 36-39. This really has nothing to do with claim 3 which specifies that a malfunction is indicated by the lack of a ready signal. The cited portion of Reed seems to teach the opposite of what is being claimed in claim 3.

Though not stated at the start of paragraph 11, apparently claims 4-9 are rejected on the same grounds as claims 2 and 3.

Regarding claims 4, 5, and 7, the Examiner states that Reed teaches the features of these claims. Regarding claims 6, 8, and 9, the Examiner states that Moyer teaches the features of these claims. However, as stated above these references are not combinable without hindsight. In addition, the cited portions of Reed and Moyer do not teach the features of the claims simply because neither is concerned with a UTOPIA bus.

Claims 10-13 and 15-16 stand rejected under 35 U.S.C. §103(a) as obvious over Moyer in view of Halsall and Mizukoshi.

Independent claim 10 claims elements 12, 14, 18, 26 and 28 of Fig. 3. Independent claim 15 claims elements 12, 18, , 26 and 28 of Fig. 3. As stated above, neither Moyer nor Halsall are concerned with UTOPIA and while Mizukoshi does show a UTOPIA bus, there is no teaching of bus masters. As argued above, these references are not combinable without knowledge of the Applicants' teaching. Here again the Examiner states that the motivation for combining the references is that "it may also benefit an ATM network". This so-called motivation does not exist in the prior art. Rather, it is the Examiner's invention based on his reading of the Applicants' disclosure.

Claims 11 and 16 depend from claims 10 and 15 respectively and the arguments made regarding claims 10 and 15 apply to these claims as well. Further, the Examiner's remarks regarding the teachings of Halsall have nothing to do with claims 11 and 16.

Claim 12 depends from claim 10 and the argument made regarding claim 10 applies to this claim as well. Moreover, the teachings of Moyer have nothing to do with UTOPIA.

Claim 13 depends from claim 12 and the argument made regarding claim 12 applies to this claim as well. Moreover, the teachings of Moyer have nothing to do with the transmission of ATM cells which is the subject of claim 13.

Claim 18 stands rejected under 35 U.S.C. §103(a) as obvious over Moyer in view of Mizukoshi. Independent claim 18 claims a method which results in elements 12, 14, and 16 of Fig. 3 and the polling methods illustrated in Figs. 4a and 4b.

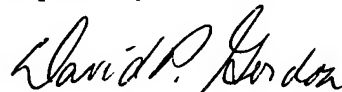
Moyer doesn't teach anything about polling and Mizukoshi doesn't teach anything about bus masters.. The Examiner's stated incentive for combining these references is "where 'the primary bus master may avoid performing any processing of bus data which deems irrelevant to itself (i.e. when in use by others) and use such valuable processing for other means' may also benefit an ATM bus network." The Examiner uses quotation marks over part of this so-called incentive suggesting that it is taken from the prior art but no citation is provided and it is certainly not taken from any of the cited references. In addition, the argument that something "may also benefit an ATM bus network" is simply a concoction by the Examiner and is not found anywhere in the prior art. If the Examiner is permitted to say that two very different things can be combined because there "may be a benefit", that is license to combine anything without any incentive.

Claim 19 stands rejected under 35 U.S.C. §103(a) as obvious over Moyer in view of Mizukoshi and Microchip IC. Again, the Examiner uses the same convoluted incentive to combine.

Independent claim 19 claims a method which results in elements 12, 14, 16, and 18 of Fig. 3, the method of either Fig. 4a or 4b and a scoreboard indicating the results of the most recent poll. As argued above, Moyer has nothing to do with ATM or UTOPIA, nor does it involve polling. Mizukoshi discloses a UTOPIA bus but does not discuss bus masters. The new reference Microchip IC does not involve ATM or UTOPIA. It involves a parallel slave port, not a bus master. It is discussing a single port not a plurality of polled PHYs. The Examiner's suggestion that the input buffer full status bit is the same as the claimed scoreboard is imaginative but not likely to be appreciated by anyone other than the Examiner. Finally, the motivation to combine these references is not to be found in the prior art.

In light of all of the above, it is submitted that the claims are in order for allowance, and prompt allowance is earnestly requested. Should any issues remain outstanding, the Examiner is invited to call the undersigned attorney of record so that the case may proceed expeditiously to allowance.

Respectfully submitted,



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